REMARKS

Claims 1-23 are pending in this application. In the June 24, 2003 Office Action, the Examiner rejected claims 11 and 13-21 under 35 U.S.C. § 112, first paragraph. Applicants note that the June 24, 2003 Office Action did not reject claims 11 and 13-21 over prior art. The Examiner also rejected claims 1-3 and 5-10 under 35 U.S.C. § 102(b) and claims 4 and 12 under 35 U.S.C. § 103(a). Applicants respectfully traverse these rejections. For the reasons set forth below, Applicants believe the claims are in condition for allowance and notice to that effect is earnestly solicited.

Claim Amendments

Claim 1 is currently amended to recite the step of "capturing at least a portion of the test content in a test item image, the test item image including at least a question portion and a response portion." (Underlined text added by amendment herein.)

Claim 11 is currently amended to recite "displaying a question portion in an image format in a window, wherein the window includes a defined number of pixels in each direction, and wherein additional pixels may be viewed by scrolling subject matter through the window." The amendment is supported in Applicants' specification at p. 7, lines 8-10, p. 7, lines 24-27, and page 16, lines 5-11.

Claim 22 and 23 are newly added. Claim 22 recites, "to provide uniformity in display without regard to the parameters of the display device, no information is presented to the respondent in text format." New claim 23 depends from claim 22 and recites that "all

6

information provided to the respondent is provided in an image-based format." Claims 22 and

23 are supported in the original specification at p. 5, lines 19-26 and p. 7, lines 24-30. No new

matter is added.

Claim Rejections under 35 U.S.C. § 112, first paragraph.

The Examiner rejected claims 11 and 13-21 under 35 U.S.C. § 112 as containing subject

matter which was not described in the specification in such a way as to enable one skilled in the

art to make and/or use the invention.

Claims 11 and 14

Regarding claims 11 and 14, the Examiner stated:

> Exactly how the Applicant arrives at the result wherein the *same amount of scrolling* is
> required to view the question portion on the first workstation display device and the other
> workstation display device is essential to make and use the invention and is not reflected
> in Claims 11, 14.

(Office Action dated June 24, 2003 p. 2) (emphasis added.)

Applicants respectfully traverse these rejections. Claim 11 recites "displaying a question

portion in an image format." Claim 14 recites "providing an image including at least one

question portion and one response portion." Using an "image" format, as that term is described

in the specification, provides for a uniform amount of scrolling despite varying display

resolutions.

> To clarify the claimed subject matter, claim 11 has been amended to recite:

> displaying a question portion in an image format in a window, wherein the window
> includes a defined number of pixels in each direction, and wherein additional pixels may
> be viewed by scrolling subject matter through the window, and wherein the same amount
> of scrolling is required to view the question portion in the window on the first

7

workstation display device and the other workstation display device, despite the different display resolutions.

The specification describes the use of an "image" of a test item and explains that such use of an image provides uniform scrolling on varying displays. More specifically, an "image" is defined by data assignments to data points or pixels:

> In the present system, test content is captured in a test item image 30. An image such as a test item image is data representing visual information. The image is defined by data assignments to data points or pixels. The data assignments may include information such as color or brightness. The image may be stored in a raster format such as a TIFF, PNG, JPEG, GIF, or BMP file. A vector format may also be used, such as DXF or DWG, where the format is made up of commands to draw lines, arcs, etc. to create the desired visual image. A raster format is preferred.

(Applicants' specification at p. 5, lines 19-26.)

Applicants' specification also describes that such use of an image of a test item provides for uniform scrolling on non-uniform displays because the same number of pixels are used to display the image across different display devices:

> When a test item requires scrolling, the same amount of scrolling may be required for various display configurations regardless of the resolution of the displays because the same number of pixels are used to display the image across all display configurations. In contrast, when test content is presented in a character-based text format, a higher resolution display typically fits more characters in the viewing area, so that less scrolling is required on a higher resolution display than on a lower resolution display, unless special scaling steps are taken.

(Applicant's specification at p. 7, lines 24-30.)

Applicants' specification further describes that the uniform scrolling can be achieved by specifying the exact dimensions of the display window in pixels:

> Another potential advantage of the image capture method of the present system concerns window scrolling. When the item content is captured and presented as a test item image, it is possible to control the amount of screen space occupied by the test item and the amount of window scrolling required to view the entire test item. By specifying the exact dimensions of the display window in pixels, the delivery system can ensure that all examinees can see the same amount of content and must perform the same amount of scrolling to view the entire test item.

8

(Applicant's specification at p. 16, lines 5-11.)

Applicants submit that, in view of the specification, claims 11 and 14 comply with 35

U.S.C. §112. Reconsideration and withdrawal of these rejections is respectfully requested.

Claims 13 and 16

In his rejection of claim 13 and 16 under §112 first paragraph, the Examiner stated:

> Exactly how the Applicant arrives at the result of wherein the first test item appears the same size on the first display and the second display . . . is not reflected in Claims 13 and 16.

(Office Action dated June 24, 2003 p. 2).

Applicants respectfully traverse this rejection. Claims 13 and 16 depend from

claims 11 and 14 respectively. Applicant's specification describes that image size and

aspect ratio are controlled by the pixel-based definition of the test item image.

(Application at p.11, lines 4-5.) The pixel-based overlay response tool recited in claims

11 and 14 may be used to interpret an item, even though the item may physically appear

to be different sizes on different displays. (Application at p.11, lines 4-16.) However, if

the pixel pitch in the window is the same on the first display and the second display, the

item will appear the same size on the first display and the second display, as recited in

claims 13 and 16. This result is described in the specification at page 6, lines 20-26

where pixel pitch is described as the spacing between pixels.

Applicants respectfully submit that claims 13 and 16 meet the requirements of section

112 first paragraph.

Claims 15 and 17-21

The Examiner rejected claims 15 and 17-21 under 35 U.S.C. §112 first paragraph, but did not articulate any specific rejection of these claims.

Claims 15 and 17-21 depend from claim 14, which applicants submit complies with 35 U.S.C. §112 first paragraph, for reasons set forth above. Accordingly, Applicants submit that claims 15 and 17-21 are allowable as well.

Accordingly, it is believed that claims 13-21 fully comply with § 112 first paragraph. Applicants respectfully request reconsideration and withdrawal of the §112 rejections.

Claim Rejections under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-3 and 5-10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,211,564 to Martinez et al.

In the June 24 Office Action, the Examiner stated that "Martinez discloses test item images being in graphic form (i.e. bitmaps and /or coordinates for vector graphics)." The Examiner pointed out that "Applicants does not disclose capturing a question and a response portion in a test item. Instead, Applicant discloses capturing *at least a portion* of the test content in a test item." Applicants respectfully traverse this rejection.

Claim 1 as amended herein recites a method for electronically displaying a test item to a respondent at a first workstation, the method comprising the step of "capturing at least a portion of the test content in a test item image, the test item image including at least the question portion and the response portion." (Underlining indicates presently added text.)

Martinez does not teach or suggest each element required by the claims. For example, Martinez does not teach or suggest presenting the question portion (the question stem 32) in an image format as required by claim 1. Applicants' Specification explains that "question portion 35 of a test item 20 typically includes at least a text portion 50 that presents a question for consideration by the test taker." P. 8, lines 18-21.

Martinez in fact *teaches away* from the claimed subject matter: Martinez teaches presenting the question stem 32 in *text* format, rather than an image format. Transmitting text in text format tends to be more efficient than in an image format, and it is thus ordinarily more desirable to present text using a text format, as showed by Martinez Fig. 1.

Martinez does not recognize the objective addressed by Applicants of presenting test items with uniform appearance on non-uniform display devices. Thus, in line with conventional practice and contrary to Applicant's claim 1, Martinez teaches presenting text in text format. As shown in Fig. 6, Martinez teaches that displaying the question step and displaying the item response background are separate steps 87, 88. Martinez only teaches presenting the image background as a bitmap image, and does not teach capturing the question stem as well as the background in an image. See Figs. 1 and 6.

11

Martinez does not anticipate Applicant's claim 1 at least because Martinez fails to teach the test item image including at least a question portion (e.g. a question stem) and a response portion, as required by the Applicants' claim. Claims 2-3 and 5-10 depend from claim 1 and are allowable at least because they depend from an allowable independent claim. Accordingly, it is believed that the claims fully comply with § 102(b). Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,211,564 to Martinez in view of U.S. Patent No. 6,042,384 to Loiacono.

Claim 4 recites printing and then electronically scanning the test content.

The Examiner stated:

> Martinez does not disclose expressly wherein the step of capturing comprises printing and then electronically scanning the test content. However, Loiacono teaches electronically scanning test content in Col. 1: 46-49 . . . . Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate into the method and system of Martinez printing and then electronically scanning the test content, in light of the teaching of Loiacono, in order to provide a way to administer test content online.

(June 24 Office Action, p. 5.)

Applicants respectfully traverse this rejection. Neither Martinez nor Loiacono teaches "capturing at least a portion of the test content in a test item image, the test item image including at least a question portion and a response portion " as recited in claim 1, from which claim 4 depends.

12

Loiacono discusses scanning completed test answers to facilitate scoring. The cited text

in Loiacono does not discuss scanning test content for presentation to the test taker. Loiacono

teaches away from storing each page of the exam as a graphic:

> After scanning, the completed exam is scored by the instructor on the computer
> and can then be viewed by the student, thus providing the desired feedback.
> Unfortunately, this technology requires an enormous amount of disk space since
> each page of each exam for each student is stored as a graphic. In addition, it
> takes much more time to scan an entire test document than to scan a one page
> answer document.

Loiacono, col. 1, lines 49-54.

Martinez and Loiacono in combination fail to teach or suggest each element of claim 1,

and further fail to teach or suggest each element of claim 4. Accordingly, it is believed that the

claims fully comply with § 103(a). Applicants respectfully request reconsideration and

withdrawal of this rejection.

Claim 12

The Examiner rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over

U.S. Patent No. 5,211,564 to Martinez.

Claim 12 recites a method comprising the steps of:

> displaying a first test item on a first display having a first resolution, the first test
> item comprising an image of test content and an overlaid response control; and

> displaying the first test item on a second display having a second resolution larger
> than the first resolution, wherein the same number of pixels is used to display the first test
> item on the first display and on the second display.

The preamble of claim 12 recites that the method displays a test item to a respondent "in

a consistent manner on a first workstation display configuration and at least one other display

configuration different than the configuration of the first workstation display."

The Examiner stated:

> Martinez does not disclose expressly displaying the first item on a second display having a second resolution larger than the first resolution, wherein the same number of pixels is used to display the first test item on the first display and on the second display. However, at the time of the invention, it would have been obvious to one of ordinary skill in the art that it would have been an obvious matter of design choice as to how many pixels to use to display a test item on a first display and on a second display wherein no stated problem is resolved or unexpected result obtained by using the same number of pixels to display a test item on a first and second display.

Applicants respectfully traverse this rejection. Applicants respectfully disagree with the Examiner's statement that no stated problem is resolved. The method solves the problem of displaying a test item to a respondent in a consistent manner on a first workstation display configuration and at least one other display configuration different than the configuration of the first workstation display, which is recited in the preamble of claim 12.

To the extent that the Examiner relies on Official Notice, Applicants traverse and respectfully request that the Examiner produce a reference.

Applicants submit that the rejection does not set forth a *prima facie* case of obviousness. The Manual of Patent Examining Procedure (MPEP) requires that three basic criteria must be met to establish a *prima facie* case of obviousness:

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must *teach or suggest all the claim limitations*.

MPEP § 2142 (emphasis added.)

14

The rejection of claim 12 does not set forth a prima facie case of obviousness at least because Martinez does not teach or suggest each element of claim 12 and the Examiner does not present a motivation or suggestion in the prior art to modify the reference. For example, Martinez does not teach or suggest displaying a test item to a respondent in a consistent manner on a first workstation display configuration and at least one other display configuration different than the configuration of the first workstation display by using the same number of pixels to display the first test item on the first display and on the second display, as recited by claim 12. The claimed method differs from the more conventional display of text in a text format, as taught in Martinez, in which the number of pixels used to display the text depends on the display resolution.

Martinez teaches that a "parameter file . . . contains reference to graphic files (bitmaps and/or coordinates for vector graphics); tools for use by the user; *text*; locations of graphics and texts; and scoring parameters." Martinez at col. 3, line 67 to col. 4, line 4 (emphasis added). On differently configured displays, the text referenced in Martinez will be displayed using varying numbers of pixels, dependent upon the screen resolution. Thus, Martinez does not solve the uniform-display problem addressed by applicants and does not teach the limitation that the "same number of pixels is used to display the first test item on the first display and on the second display" as required by claim 12.

Accordingly, it is believed that the claims fully comply with § 103(a). Applicants respectfully request reconsideration and withdrawal of this rejection.
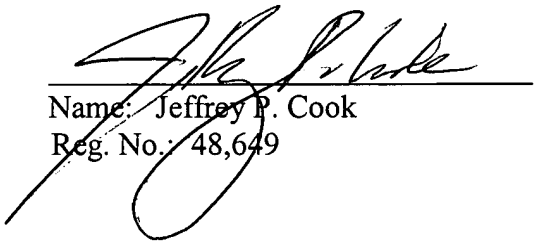
Summary

In summary, each of claims 1-23 are in condition for allowance and a notice of allowance is respectfully requested.

Respectfully submitted,
Merchant & Gould P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: _September 24, 2003_

Name: Jeffrey P. Cook
Reg. No.: 48,649

23552
PATENT TRADEMARK OFFICE

16